

Figure 1

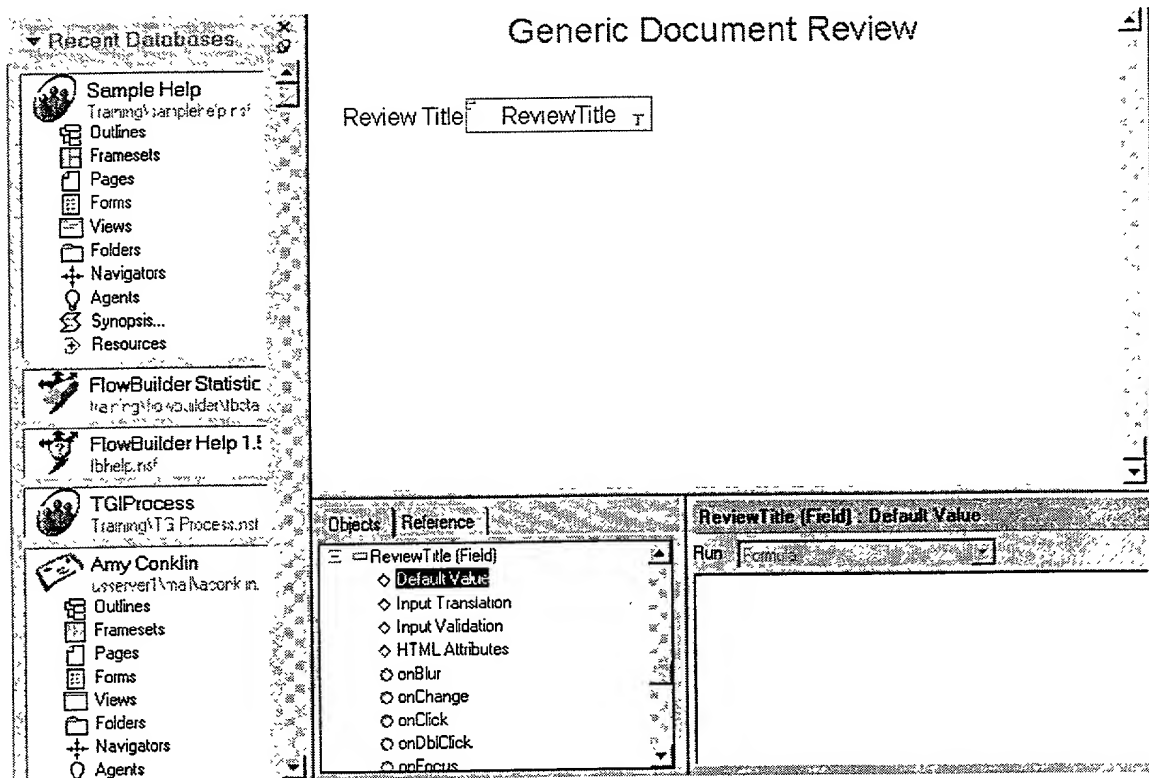


Figure 2

300

312

System Toolbar

FlowBuilder 1.51a - Visual Designer

Visual Designer

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Workflow Cycles

- Absence Request
- Reason Award Nomination Process
- Benefits Enrollment
- complaint handling event
- Customer Support Request
- DANA Customer Support Request
- eBeam Support Request
- eKile Support Request
- Expense Reporting
- FlowBuilder Forum
- Generic Document Review
- Kemper Logon ID Request Final Version
- New Online Order
- New Order
- New Product Request
- Processus Questions Response
- Purchase Order
- Salary Review

Routing Types

Messages

Database Aliases

318

320

322

Workflow Object Store

316

302

Objects Toolbar

332

326

330

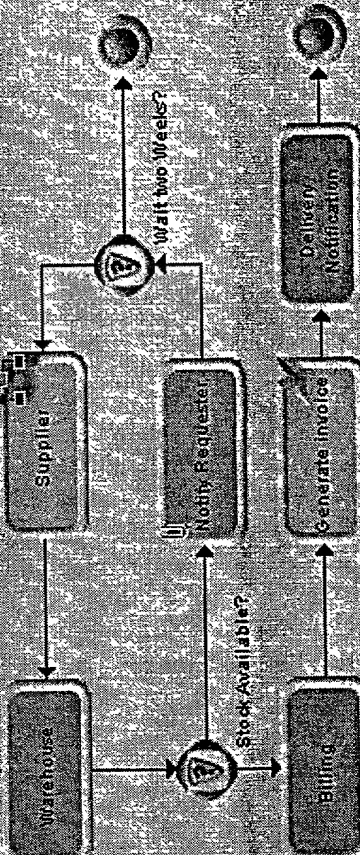
324

328

Workflow Design Area

304

This is an example of an actual process that handles the incoming online orders from an e-commerce Web Site



- Event 'New Online Order'
- Segment 'Warehouse'
- Segment 'Delivery Notification'
- Segment 'Billing'
- External 'Generate Invoice'
- Condition 'Stock Available?'
- Condition 'Wait two Weeks?'
- Subflow 'Supplier'

Event	Alias	Server	Database	Form	Condition
New Online Order	enile			onlineorder	

Inspector

306- Object Inspector

Comments Panel-308

Properties Panel-310

Figure 3

Parameter	Unit	Value	Standard Error	t-Statistic	p-Value
Intercept		1.2345	0.1234	10.00	0.0000
Age	Years	0.0567	0.0089	6.37	0.0000
Gender	Male/Female	0.1234	0.0456	2.70	0.0089
Education	Years	0.0234	0.0034	6.88	0.0000
Income	Thousands of Dollars	0.0123	0.0012	10.25	0.0000
Health	Good/Bad	0.0890	0.0234	3.79	0.0002
Marital Status	Married/Single	0.0456	0.0123	3.71	0.0003
Religion	Protestant/Catholic	0.0345	0.0098	3.52	0.0005
Political Party	Democrat/Republican	0.0234	0.0067	3.49	0.0006
Region	North/South	0.0123	0.0045	2.73	0.0087
Time	Years	0.0012	0.0001	12.34	0.0000
Constant		1.2345	0.1234	10.00	0.0000

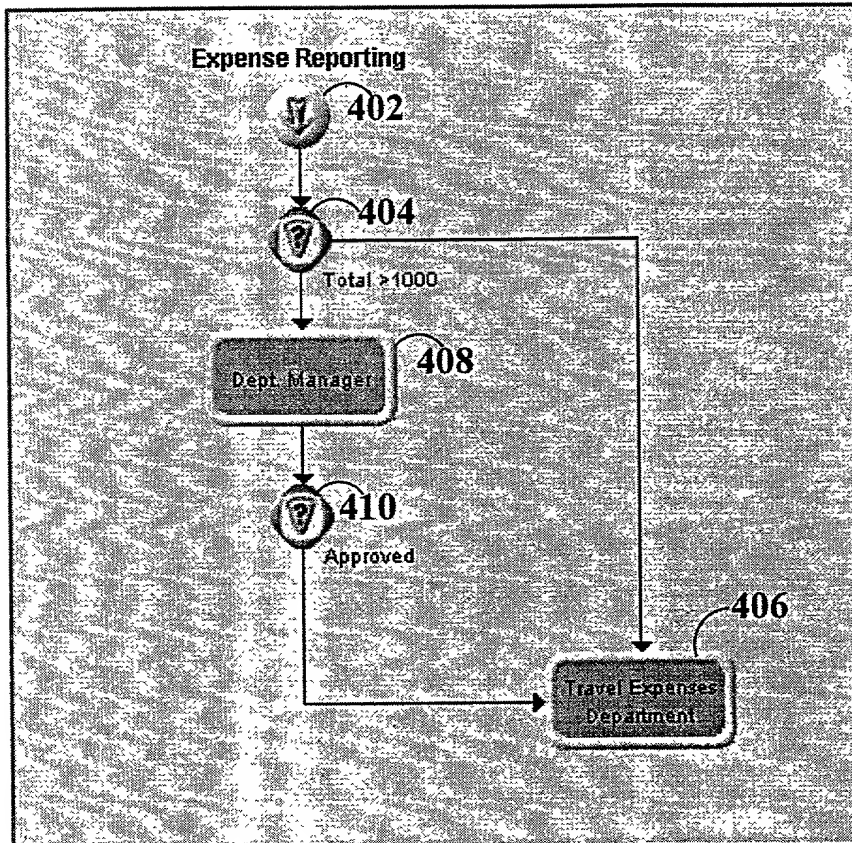


Figure 4

500

506

502

504

Event 'Expense Reporting'

- ▶ Segment 'Dept. Manager'
- ▶ Segment 'Travel Expenses Depa'
- ▶ Condition 'Total >1000'
- ▶ Condition 'Approved'

Event: Expense Reporting

Alias: FlowBuilder Sample Database

Server:

Database:

Form: fb_trpa

Condition:

Priority: High

☒ Activate Process

Inspector Comments

Figure 5

Event 'Absence Request'	
▽ Segment 'Line Manager Approval'	
Routing type	
Routing rules	
Routing options	
Time line	
Routing Type	
Sign off is required by	
Approval	
Everybody	
Anybody — 602	
Everybody — 604	
Majority — 606	

Figure 6a

<p>Event 'Cycle'</p> <p>▼ Segment 'Segment1'</p> <p>Routing type</p> <p>Routing rules</p> <p>Routing options</p> <p>Deadline date</p> <p>Deadline handler</p>	<p>Routing Type</p> <p>Sign off is required by</p> <div> <p>Approval</p> <p>Combined Approval/Edit</p> <p>For information</p> <p>Review</p> <p>Simple Review</p> </div>
<p>Inspector Comments</p>	

Figure 6b

Event 'Expense Reporting'

- ▼ **Segment 'Dept. Manager'**
 - Routing type
 - Routing rules
 - Routing options
 - Deadline date
 - Deadline handler
- ▶ **Segment 'Travel Expenses Department'**
- ▼ **Condition 'Total >1000'**
 - Previous result
 - Formula
 - On requester
- ▶ **Condition 'Approved'**

Routing Rules

Always send to: Department Manager

Branching Label

Formula

Simple Roles ...

Composed Roles

Static Users ...

Add
Change
Delete
Clear

Inspector
Comments

702

704

Figure 7a

40940 99999999

Event 'Expense Reporting'

Segment 'Dept. Manager'

Routing type

Routing rules

Routing options

Deadline date

Deadline handler

Segment 'Travel Expenses Department'

Condition 'Total >1000'

Condition 'Approved'

Routing Rules

Always send to: Department Manager

Branching Label

Formula

Simple Roles: Department Manager

Composed Roles

Static Users

New Duplicate Delete

Inspector
Comments

702

704

706

708

710

Figure 7b

Event 'Expense Reporting'

▼ Segment 'Dept. Manager'

Routing type

Routing rules

Routing options

Deadline date

Deadline handler

► Segment 'Travel Expenses'

► Condition 'Total >1000'

► Condition 'Approved'

☒ View History

☐ Notify Subsequent Routing to Requester

☐ Notify Action Result to Requester

☐ Switch to Other Form for Display

☒ Authorize Reassignment

☒ Authorize Delegation

☒ View Other Actors

Figure 8

902

Event 'Cycle' ▼ External 'External1' External handler	Segment ID	External1
	Label	
	Comment	
	Link to URL	
		Preview

Inspector Comments

Figure 9

FIG. 10

1002

Event 'Cycle'	
▽ External 'External1'	
External handler	
Yield for external processing task <input type="button" value="No"/>	
Alias	<input type="text"/>
Server	<input type="text"/>
Database	<input type="text"/>
Agent	<input type="text"/>
Inspector	Comments

Figure 10

<div> <div> <div>Event 'Expense Reporting'</div> <div>Segment 'Dept. Manager'</div> <div>Routing type</div> <div>Routing rules</div> <div>Routing options</div> <div>Deadline date</div> <div>Deadline handler</div> </div> <div> <div>Segment 'Travel Expenses'</div> <div>Condition 'Total >1000'</div> <div>Condition 'Approved'</div> </div> </div> <div> <div>Inspector</div> <div>Comments</div> </div>	<div> <div> <input checked="" type="checkbox"/> Set Deadline <div>1108</div> </div> <div> <div>Deadline Type</div> <div> <div>Handling Margin</div> <div>Handling Margin</div> <div>User Defined Deadline Date</div> </div> </div> <div> <div>Time Unit</div> <div> <div>Days</div> </div> </div> <div> <div>Handling Margin</div> <div>0</div> </div> </div> <div> <div>1102</div> <div>1104</div> <div>1106</div> </div>
--	--

Figure 11

0982856-0404

1202

Event 'Expense Reporting'
▼ Segment 'Dept. Manager'
Routing type
Routing rules
Routing options
Deadline date
Deadline handler
▶ Segment 'Travel Expense'
▶ Condition 'Total >1000'
▶ Condition 'Approved'

How should FlowBuilder handle this deadline Send Reminder ▼

Time unit Days ▼
Start sending reminders 2 before deadline
Stop sending reminders 0 after deadline
Repeat interval 1
Repeat number 1

Who should FlowBuilder notify if deadline is exceeded
☐ Notify Requester —1204
☐ Notify People —1206

What should FlowBuilder do if reminder is ignored Abort Cycle ▼

Who should FlowBuilder notify if reminder is ignored
☐ Notify Requester
☐ Notify People

Inspector Comments

Figure 12

103010-905880

Event 'Expense Reporting' <ul style="list-style-type: none">▷ Segment 'Dept. Manager'▷ Segment 'Travel Expenses Depa▷ Condition 'Total >1000'▼ Condition 'Approved'<ul style="list-style-type: none">Previous resultFormulaOn requester	Previous result condition All Succeed ▼ <input checked="" type="checkbox"/> Specified Segments Must Succeed <input checked="" type="checkbox"/> Specified Segments Can Fail
Inspector Comments	

Figure 13

Event 'Expense Reporting'

- ▶ Segment 'Dept. Manager'
- ▶ Segment 'Travel Expenses Depa
- ▶ Condition 'Total >1000'
- ▼ Condition 'Approved'

Previous result
Formula
On requester

Document Formula

Inspector Comments

Figure 14

☒ Set Requester Filter

Requester is assigned the following roles —1504 Include subtree

Requester is not assigned the following roles —1506

Requester belongs to the following organizations —1508

Requester does not belong to the following organizations —1510

Figure 15

Composed Role	Evaluation Result	Remarks
{"Philip Collins/TRILOG"}	Philip Collins/TRILOG	This is equivalent to choosing a static user from your Name and Address Book.
Line Manager ({"Philip Collins/TRILOG":"Mary Davis/TRILOG"})	Line Manager of Philip Collins/TRILOG Line Manager of Mary Davis/TRILOG	The Notes formula is evaluated to a user list then the simple role is applied to each user independently.
{@UserName}	The workflow requester	Do not use @UserName in a formula, as the user who launched the FlowBuilder Router is returned.
Secretary({@Subset(\$UpdatedBy;-1)})	The secretary of the user who last updated the document	Only valid if the Form is not marked anonymous.
Line Manager ({FB_Requester})	The Line Manager of the Requester	This syntax is equivalent to Line Manager..
[Project]	The Project field in the document is interpreted as a role. Usually, users will use a dropdown list with the existing projects and have them available as roles in the Planner. If the user selects Project A for instance, MORSE will evaluate the role Project A to determine the recipients.	Square brackets can be used in the same way braces are used. MORSE would simply interpret the result of the formula as roles that yet need to be evaluated to recipients.
Secretary (Accounts Payable({FB_ActionUser}))	The secretary of Accounts Payable of all users who were acting on the document in the previous workflow segment.	Roles at any level may be composed.

Figure 16

1702

Event 'Cycle' ▶ External 'External1' Subflow 'Subflow1'	Subflow ID	<input type="text" value="Subflow1"/>
	Label	<input type="text"/>
	Target Cycle	<input type="text" value="1704"/>
	Comment	<div></div>
	Link to URL	<input type="text"/> <input type="button" value="Preview"/>

Inspector **Comments**

Figure 17

1802


Routing Type

Routing Type	Combined Approval/Edit
Notification Message	Default Approval Notification
Routing Category	Activity required
Activity Label	
Activity Description	You are required to Approve or Deny this request. You are allowed to update the following information if needed.
Document Access	Editor
Activity Status Labels	
Pending Status	Pending
Success Status	Approved
Failure Status (optional)	Denied
Activity Result Notification	
Success Message	Successful Approval Message
Failure Message	Denial Message

Figure 18a

009295-0404
T09040-96582860

1804

Routing Type 


Routing Type	Simple Review
Notification Message	Default Review Notification ▼
Routing Category	Purely Informational ▼

Figure 18b

Figure 18c

10500-905260

1808

Routing Type 

Routing Type	For information
Notification Message	Generic Information Message ▼
Routing Category	Purely informational ▼

Figure 18d

1810

Routing Type

Routing Type	Review
Notification Message	Default Review Notification ▼
Routing Category	Activity required ▼
Activity Label	
Activity Description	Please acknowledge that you reviewed this document
Document Access	Editor ▼

Activity Status Labels

Pending Status	Pending
Success Status	Reviewed OK
Failure Status (optional)	Back for changes

Activity Result Notification

Success Message	Successful Review Message ▼
Failure Message	Denial Review Message ▼

Figure 18e

Figure 19a

Notification Message

Message Id	Default Approval Notification
Message description	This is the default message associated with all approval actions unless overridden in a workflow segment route description
Subject	{FB_Event} from {@Name({CN};FB_Requester)}: Approval Required
Body	Please approve the following document requested by {@Name({Abbreviate};FB_Requester)}:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:
 {FB_Event}:Approval Required
 Request submitted by {@Name({CN};FB_Requester)} on {@Date(FB_RequestTime)}

Figure 19b

Notification Message

Message Id	Default Review Notification
Message description	This is the default message associated with all review actions unless overridden in a workflow segment route description
Subject	{FB_Event}; Review requested by {@Name({CN};FB_Requester)}
Body	Please review the following document requested by {@Name({Abbreviate};FB_Requester)}:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink


Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}; Approval Required
 Request submitted by {@Name({CN};FB_Requester)} on {@Date(FB_RequestTime)}

Figure 19c



Notification Message

Message Id

Denial Message

Message description

Denial Message

Subject

{FB_Event}: Your request has been denied.

Body

The request you have submitted has been denied:

Options

☒ Append URL

☒ Keep URL Parameters

☒ Append DocLink

Building context sensitive messages


In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}/Approval Required

Request submitted by {@Name({CN},{FB_Requester})} on {@Date({FB_RequestTime})}

Figure 19d



Notification Message

Message Id	Denial Review Message
Message description	Denial Review Message
Subject	{FB_Event}; Reviewer denied.
Body	Reviewer had several remarks on the document submitted on { @Text(FB_RequestTime) }. See comments:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform:

Example:
 {FB_Event}; Approval Required
 Request submitted by { @Name({CN};FB_Requester) } on { @Date(FB_RequestTime) }

Figure 19e

Notification Message

Message id	Generic Information Message
Message description	Generic Notification (purely informational)
Subject	Notification about {FB_Event}; Document submitted by {@Name([CN];FB_Requester)}.
Body	Document submitted by {@Name([CN];FB_Requester)} on {@Text(FB_RequestTime)}.
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:
 {FB_Event};Approval Required
 Request submitted by {@Name([CN];FB_Requester)} on {@Date(FB_RequestTime)}

Figure 19f

Notification Message

Message Id	Simple Review Completion
Message description	Simple Review Completion Message
Subject	{FB_Event}: Reviewer has reviewed the document.
Body	The document you submitted on {@Text{FB_RequestTime}} has been reviewed. See comments:
Options	<input checked="" type="checkbox"/> Append URL <input checked="" type="checkbox"/> Keep URL Parameters <input checked="" type="checkbox"/> Append DocLink


Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run-time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}: Approval Required
 Request submitted by {@Name{CN|FB_Requester}} on {@Date{FB_RequestTime}}

Figure 19g



Notification Message

Message Id

Starnes Special

Message description

Subject

This the special message for you

Body

You do not need to worry about this but it will cost you a lot of money

Options

☐ Append URL
☐ Keep URL Parameters
☐ Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event} Approval Required
 Request submitted by {@Name({CN}|FB_Requester)} on {@Date(FB_RequestTime)}

Figure 19h

Notification Message

Message Id

Successful Approval Message

Message description

Successful Approval Message

Subject

{FB_Event}; Your request has been approved.

Body

The request you submitted on {@Text{FB_RequestTime}} has been approved.

Options

☒ Append URL

☒ Keep URL Parameters

☒ Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula acting on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}; Approval Required

Request submitted by {@Name{CN};FB_Requested} on {@Date{FB_RequestTime}}

Figure 19i

Notification Message

Message Id

Successful Review Message

Message description

Successful Review Message

Subject

{FB_Event}; Review completed successfully.

Body

The document you submitted on {Text{FB_RequestTime}} has been reviewed and approved.

Options

☒ Append URL

☐ Keep URL Parameters

☐ Append DocLink

Building context sensitive messages:

In both Subject and Body, you can include the text of any Notes Formula adding on the routed document between braces. The FlowBuilder Router will evaluate all formulas at run time. The following example uses FlowBuilder technical fields from the Workflow Subform.

Example:

{FB_Event}; Approval Required Request submitted by {Name{CN};FB_Request} on {Date{FB_RequestTime}}

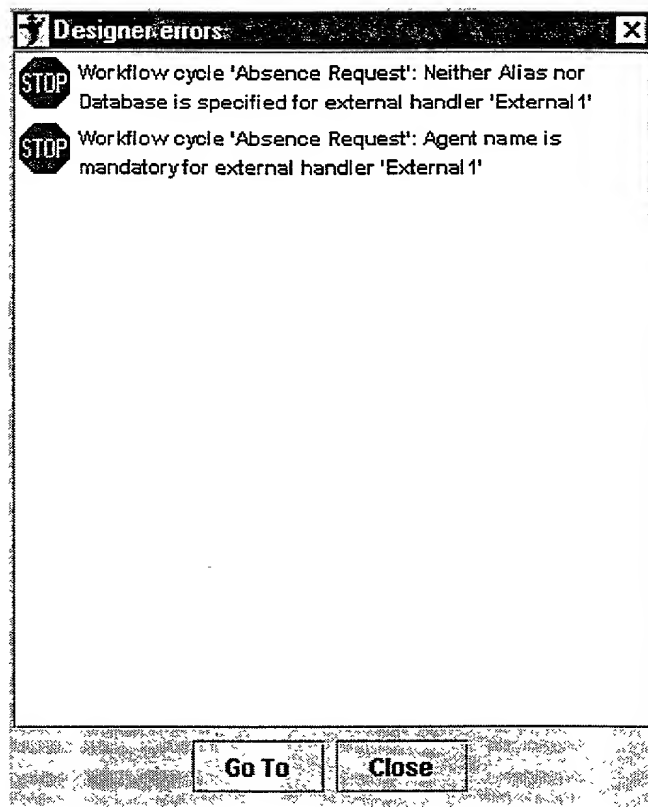


Figure 20

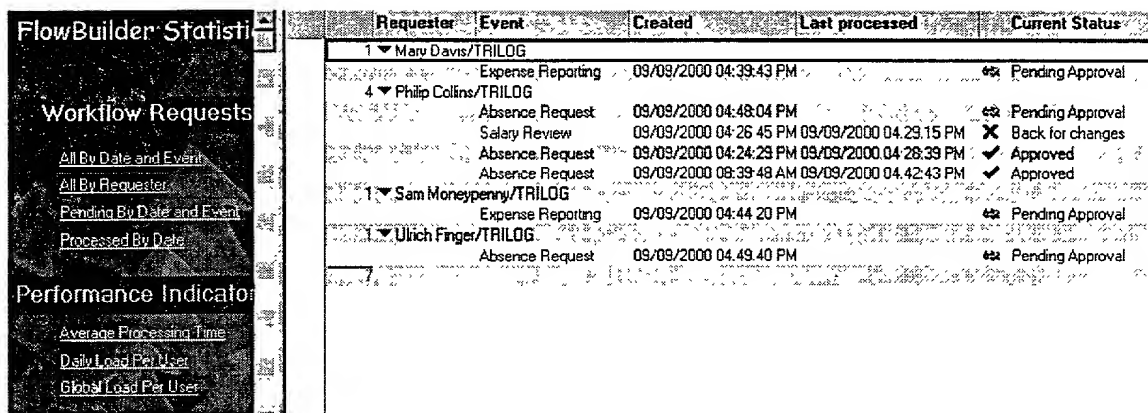


Figure 21

Event Log



Workflow History

Actual Document

9/9/00 4:48:18 PM New Event 'Absence Request' detected: Workflow Cycle initiated on form 'Absence Request'.

9/9/00 4:48:18 PM Requester = Philip Collins/TRILOG

9/9/00 4:48:18 PM Absence Request: Executing Workflow Segment -> Line Manager Approval

9/9/00 4:48:18 PM Notification sent to the following recipients:

Mary Davis/TRILOG - Role : Line Manager

9/9/00 4:48:18 PM Number of people required for success = 1

9/9/00 4:48:18 PM User(s): Mary Davis/TRILOG

Notified about : Absence Request from Philip Collins: Approval Required

Figure 22

Reassign Task

Reassign Task

Server: Training/TRILOG
Database: flowbuilder\fb-sample.nsf
Process: Absence Request

Current Activity Participants Reassign To

Mary Davis/TRILOG Sam Moneypenny/TRILOG

Reassign

OK

Figure 23

**Workflow History****Actual Document**

9/9/00 4:48:18 PM New Event 'Absence Request' detected: Workflow Cycle initiated on form 'Absence Request'.

9/9/00 4:48:18 PM Requester = Philip Collins/TRILOG

9/9/00 4:48:18 PM Absence Request: Executing Workflow Segment -> Line Manager Approval

9/9/00 4:48:18 PM Notification sent to the following recipients:

Mary Davis/TRILOG - Role : Line Manager

9/9/00 4:48:18 PM Number of people required for success = 1

9/9/00 4:48:18 PM User(s): Mary Davis/TRILOG




Notified about : Absence Request from Philip Collins: Approval Required


9/9/00 9:18:49 PM Action Approval reassigned by Mary Davis/TRILOG to Sam Money Penny/TRILOG

9/9/00 9:18:49 PM User(s): Sam Money Penny/TRILOG

Notified about : Absence Request from Philip Collins: Approval Required

Figure 24


Address  http://localhost/fbmanager.html  Go  Links

**FlowBuilder
Servlet Manager**

Enter Password

[Change Password](#)

Confirm



[Stop Service](#)

[Set High Priority](#)

[Set Normal Priority](#)

[Set Low Priority](#)

[Set Deadline Frequency](#)

FlowBuilder Router Information

Figure 25